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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,671	03/29/2005	Itsuaki Katsumata	789_140	8438

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BURR & BROWN  
PO BOX 7068  
SYRACUSE, NY 13261-7068

EXAMINER
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LEE, BENNY T

ART UNIT	PAPER NUMBER
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2817

MAIL DATE	DELIVERY MODE
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07/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/529,671

Applicant(s)

KATSUMATA ET AL.

Examiner

Benny Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

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The disclosure is objected to because of the following informalities: Note that for the specification description of the individual drawing figures, such description should be describe, at least once for every reference number & label appearing in the corresponding drawing figure. Some, but not all, examples of reference numbers and labels not described in the specification description are as follows: Fig. 1 “36”; Fig. 2 (14, 16, C); Fig. 3 (12, 22, 24, 34, 36, X); Figs. 4, 5, 6 (Frequency, C=C1, C=C2, C=C3); Fig. 7 (14, 16, 18, 20, 38, 40, 50, 52, A1, A2, A3, A4, C, Cv, K1, K2, X); etc. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Allison et al.

Allison et al (Fig. 2) discloses a variable phase shifter (i.e. which electrically corresponds to a “delay line”) comprising: a hybrid coupler (e.g. quadrature coupler 16a) having an input terminal (12a) for receiving input signal (30); first and second output terminals (i.e. ports 18a, 20a) for outputting signals which are 90° out of phase with respect to each other (i.e. by virtue of the nature of a quadrature coupler 16a); first and second variable reactance parts (i.e. 22a, 24a) operatively connected to the corresponding output terminals (18a, 20a) and functioning to reflect corresponding ones of the output signals back through the hybrid (i.e. quadrature) coupler; and an isolation terminal (i.e. signal output terminal 14a) for outputting the reflected signals (e.g. 32) based on the first and second output signals. Moreover, note that each reactance part (22a, 24a)

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comprises first and second “reactance devices” (i.e. MEMs elements 40) and corresponding first and second resonant circuits (e.g. inductor 38 and capacitor 36), which are respectively connected between a corresponding variable reactance element (40) and a common ground potential, as is evident from Fig. 2. Furthermore, note that each reactance part inherently includes a same reactance by virtue of the like values associated with the inductors and capacitors of the resonant circuits and the reactance of like MEMs elements (40).

Applicant's arguments with respect to claims 1, 2 & 4 have been considered but are moot in view of the new ground(s) of rejection.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 2-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

A handwritten signature in cursive script that reads "Benny Lee".

B. Lee

**BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817**